



Brazil Soybean Transportation

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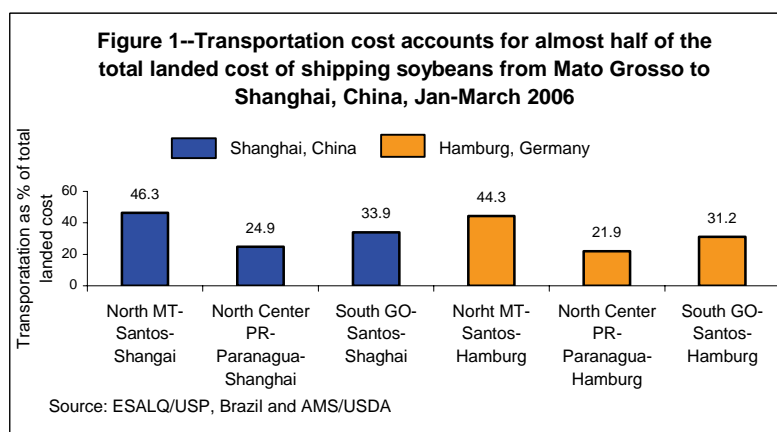
Brazil Soybean Transportation Guide 2005

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Brazilian Transportation Costs to Shanghai Now Reported. The Brazilian Export Soybean Transport Indicator Report has been expanded to include total landed cost from major production areas in Brazil to Shanghai, China.



Transportation costs accounted for almost half of the total landed cost of shipping soybeans from Sorriso, North Mato Grosso (MT), to Shanghai, through the respective ports of Santos and Paranaguá, as shown in figure 1. The route between North MT and the port of Santos is 90 percent longer than the average of 626 miles for the 24 routes considered in the report. Consequently, the cost of shipping is higher. Costs are exacerbated by the poor condition of the roads.

During the first quarter 2006, total transportation costs of shipping soybeans from North MT to Hamburg, Germany, were 7 percent higher than the first quarter 2005. Table 1 shows that ocean rates from the ports of Santos and Paranaguá to Hamburg, Germany, dropped by 13 percent from the first quarter 2005. However, this decline in ocean rates was not enough to offset the 65-percent increase in truck rates in the state of Goiás which resulted in a 15-percent increase in total transportation costs.

Table 1--Quarterly costs of transporting Brazilian soybeans to Hamburg, Germany

Table 1 - Quarterly costs of transporting Brazilian soybeans to Hamburg, Germany						
	2005	2006	Percent change	2005	2006	Percent change
	1st qtr.	1st qtr.		1st qtr.	1st qtr.	
Northwest RS ¹ -Rio Grande ²				North MT ¹ - Paranagua ²		
	--\$/mt--			--\$/mt--		
Truck	12.83	13.54	5.52	69.96	84.65	21.00
Ocean	44.20	37.06	-16.15	44.64	38.51	-13.74
Total transportation	57.03	50.60	-11.27	114.60	123.16	7.47
Farm Value ³	202.61	202.56	-0.03	145.15	157.86	8.76
Landed Cost	259.64	253.16	-2.50	259.75	281.02	8.19
Transport % of landed cost	21.97	19.99	-9.00	44.12	43.83	-0.67
South GO ¹ -Santos ²				North Center PR ¹ -Paranagua ²		
	--\$/mt--			--\$/mt--		
Truck	25.82	42.49	64.56	19.26	19.41	0.77
Ocean	45.53	39.51	-13.22	44.64	38.51	-13.74
Total transportation	71.35	82.00	14.93	63.90	57.92	-9.36
Farm Value ³	174.70	180.71	3.44	196.31	206.88	5.38
Landed Cost	246.05	262.71	6.77	260.21	264.79	1.76
Transport % of landed cost	29.00	31.21	7.64	24.56	21.87	-10.93

¹Producing regions: RS = Rio Grande Do Sul, MT= Mato Grosso, GO = Goiás, PR = Paraná

²Export ports; ³Source: Companhia Nacional de Abastecimento

Source: ESALQ/ USP, Brazil and USDA/AMS

³Source: Companhia Nacional de Abastecimento (CONAB) www.conab.gov.br

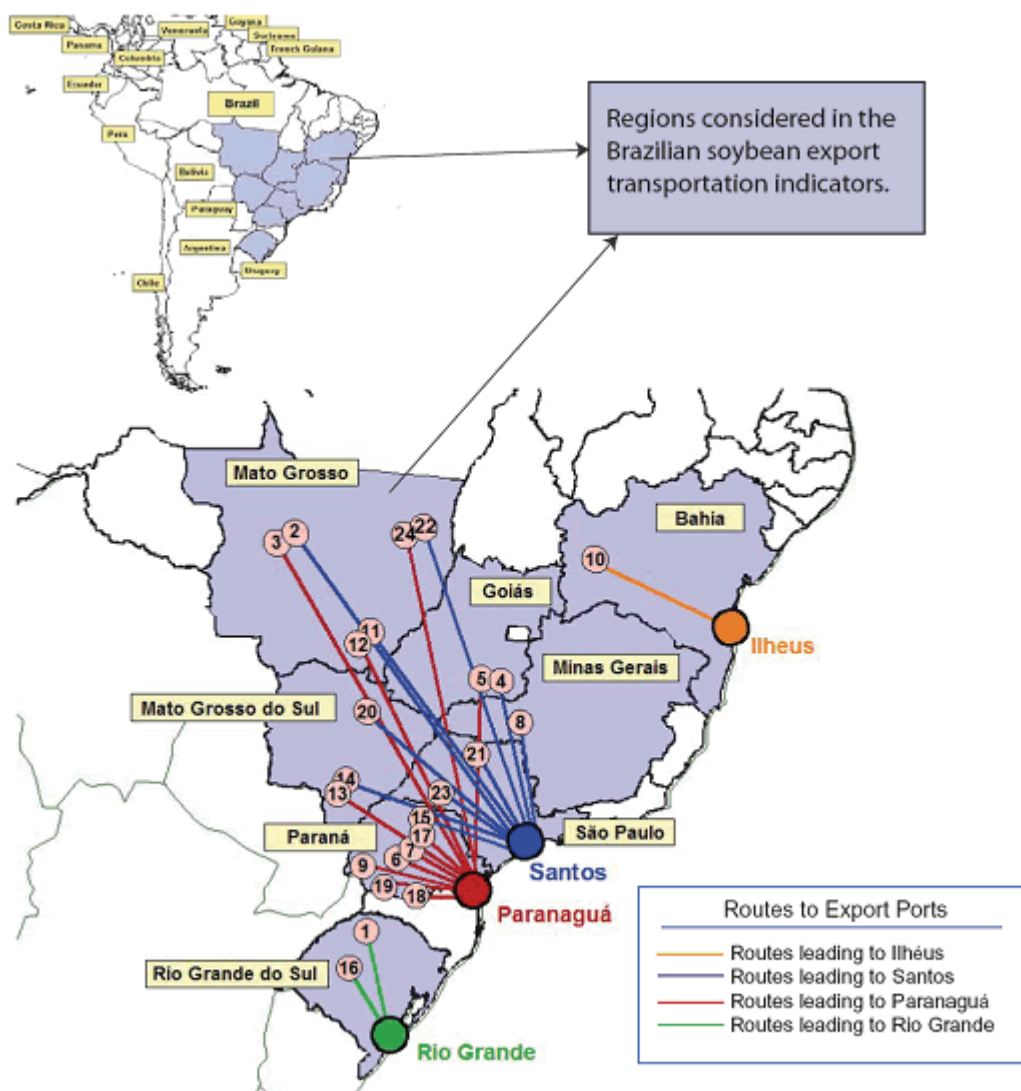
Brazil Supreme Court Orders GMO Soy Shipments. On April 10, the Brazil Supreme Federal Court (STF) ordered the state of Paraná to allow shipments of genetically modified (GMO) soy from the port of Paranaguá. The president of the Brazil STF rejected an appeal by the state of Paraná and ordered it to allow GMO soy shipments from its ports. On April 20, 2006, the port of Paranaguá announced its operational plan, assigning berth 214 as the primary loading terminal for vessels carrying GMO soy. All private terminals can handle GMO and non-GMO soy if shipments are separated at receiving, storage, and shipping points. On April 25, the first vessel carrying Brazilian GMO soy departed from the port of Paranaguá. Brazil legalized GMO soy in 2005, but the state of Paraná had declared itself to be a biotech-free zone in October 2003 and banned GMOs passing through the port of Paranaguá. As a result, the port of

Paranaguá lost its leadership as the top Brazil soybean export port to the port of Santos. Paranaguá is now the second largest soybean export port, accounting for 23 percent of total Brazilian soybean exports in 2005. Santos exports 33 percent of the crop. Delmy.Salin@USDA.gov

Brazil Soybean Transportation Indicators

Figure 1

Routes and regions considered in the Brazilian soybean export transportation indicator¹



¹Regions comprised 84 percent of Brazilian soybean production, 2003
Source: USDA/AMS & ESALQ - University of São Paulo (USP), Brazil

Table 1

Quarterly costs of transporting Brazilian soybeans from selected routes to Shanghai, China and Hamburg, Germany

2006						2006				
	1st qtr.	2nd qtr.	3rd qtr.	4th qtr.	Avg.	1st qtr.	2nd qtr.	3rd qtr.	4th qtr.	Avg.
Shanghai, China										
	North MT ¹ - Santos ² --\$/mt--					North MT ¹ - Paranagua ² --\$/mt--				
Truck	86.22					84.65				
Ocean	50.13					49.13				
Total transportation	136.36					133.78				
Farm Value ³	157.86					157.86				
Landed Cost	294.22					291.65				
Transport % of landed cost	46.35					45.87				
	Southeast MT ¹ - Santos ² --\$/mt--					North Center PR ¹ - Paranagua ² --\$/mt--				
Truck	65.24					19.41				
Ocean	50.13					49.13				
Total transportation	115.37					68.54				
Farm Value ³	157.86					206.88				
Landed Cost	273.24					275.42				
Transport % of landed cost	42.22					24.89				
	South GO ¹ - Santos ² --\$/mt--					Northwest RS ¹ - Rio Grande ² --\$/mt--				
Truck	42.49					13.54				
Ocean	50.13					48.63				
Total transportation	92.62					62.17				
Farm Value ³	180.71					202.56				
Landed Cost	273.33					264.73				
Transport % of landed cost	33.89					23.49				
	Hamburg, Germany									
	North MT ¹ - Santos ² --\$/mt--					North MT ¹ - Paranagua ² --\$/mt--				
Truck	86.22					84.65				
Ocean	39.51					38.51				
Total transportation	125.73					123.16				
Farm Value ³	157.86					157.86				
Landed Cost	283.60					281.02				
Transport % of landed cost	44.34					43.83				
	Southeast MT ¹ - Santos ² --\$/mt--					North Center PR ¹ - Paranagua ² --\$/mt--				
Truck	65.24					19.41				
Ocean	39.51					38.51				
Total transportation	104.75					57.92				
Farm Value ³	157.86					206.88				
Landed Cost	262.61					264.79				
Transport % of landed cost	39.89					21.87				
	South GO ¹ - Santos ² --\$/mt--					Northwest RS ¹ - Rio Grande ² --\$/mt--				
Truck	42.49					13.54				
Ocean	39.51					37.06				
Total transportation	82.00					50.60				
Farm Value ³	180.71					202.56				
Landed Cost	262.71					253.16				
Transport % of landed cost	31.21					19.99				

¹Producing regions: RS = Rio Grande Do Sul, MT= Mato Grosso, GO = Goiás, PR = Paraná²Export ports³Source: Companhia Nacional de Abastecimento (CONAB) www.conab.gov.br

Source: ESALQ/ USP (University of São Paulo, Brazil) and USDA/AMS

Table 2

Truck rates for selected Brazilian soybean export transportation routes, 1st quarter 2006

Route #	Origin ¹ (reference city)	Destination	Distance (miles) ²	Share (%) ³	Freight price (per 100 miles) ⁴
1	Northwest RS ⁵ (Cruz Alta)	Rio Grande	288	16.6	4.70
2	North MT(Sorriso)	Santos	1190	10.1	7.25
3	North MT(Sorriso)	Paranaguá	1262	9.5	6.71
4	South GO(Rio Verde)	Santos	587	7.0	7.24
5	South GO(Rio Verde)	Paranaguá	726	5.6	5.94
6	North Center PR(Londrina)	Paranaguá	268	4.4	7.24
7	Western Center PR(Mamborê)	Paranaguá	311	3.9	6.57
8	Triangle MG(Uberaba)	Santos	339	3.8	10.01
9	West PR(Assis Chateaubriand)	Paranaguá	377	3.7	6.30
10	West Extreme BA(São Desidério)	Ilhéus	544	3.6	8.07
11	Southeast MT(Primavera do Leste)	Santos	901	3.6	7.24
12	Southeast MT(Primavera do Leste)	Paranaguá	975	3.3	6.48
13	Southwest MS(Maracaju)	Paranaguá	612	3.1	7.58
14	Southwest MS(Maracaju)	Santos	652	2.9	9.48
15	West PR(Assis Chateaubriand)	Santos	550	2.5	6.00
16	Western Center RS(Tupanciretã)	Rio Grande	273	2.4	5.86
17	Southwest PR(Chopinzinho)	Paranaguá	291	2.3	9.40
18	Eastern Center PR(Castro)	Paranaguá	130	2.3	9.91
19	South Center PR(Guarapuava)	Paranaguá	204	2.1	8.55
20	North Center MS(São Gabriel do Oeste)	Santos	720	2.0	6.09
21	Ribeirão Preto SP(Guairá)	Santos	314	1.5	8.42
22	Northeast MT(Canarana)	Santos	950	1.4	8.23
23	Assis SP(Palmital)	Santos	285	1.2	7.81
24	Northeast MT(Canarana)	Paranaguá	1075	1.2	7.30
Average			626	100	6.91

¹ Although each origin region comprises several cities, the main city is considered as a reference to establish the freight price

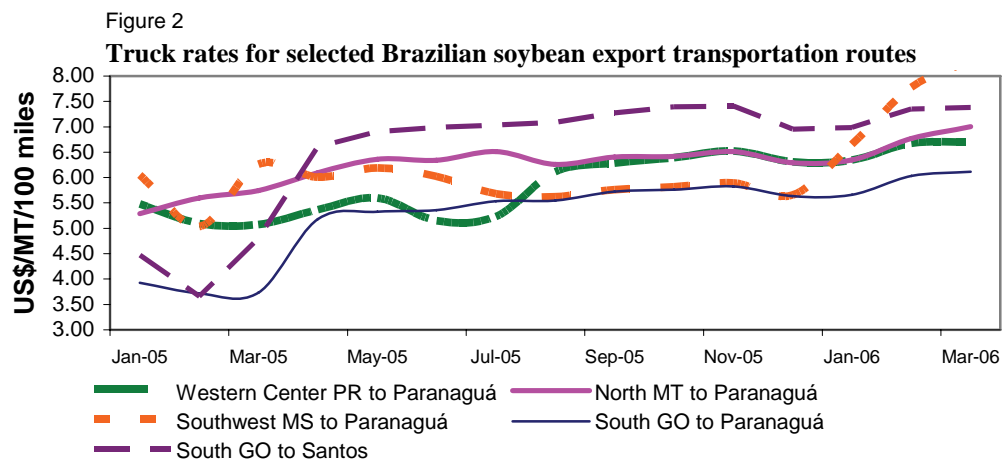
² Distance from the main city of the considered region to the mentioned ports

³ The share is measured as a percentage of total production

⁴ US\$ per metric ton (average monthly exchange rate from "Banco Central do Brasil" was used to convert Brazilian reais to the U.S. dollar)

⁵ RS = Rio Grande Do Sul, MT= Mato Grosso, GO = Goiás, PR = Paraná, MG = Minas Gerais, BA = Bahia, MS = Mato Grosso Do Sul, SP = São Paulo

Source: ESALQ/USP (University of São Paulo, Brazil) and USDA/AMS



Source: ESALQ/ USP (University of São Paulo, Brazil) and USDA/AMS

Table 3

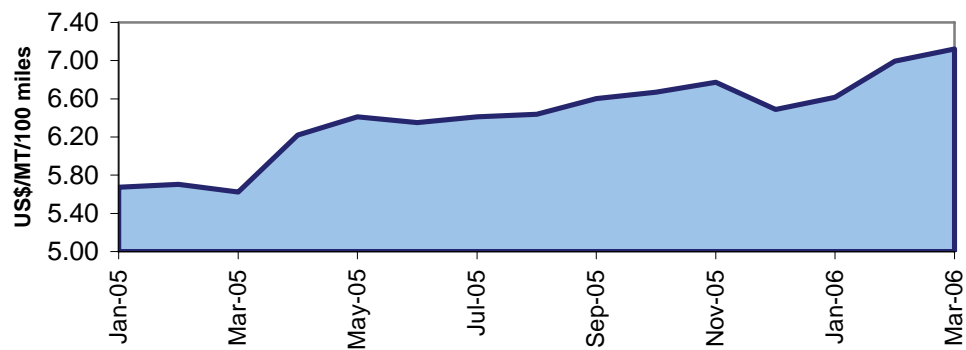
Monthly Brazilian soybean export truck transportation cost index

Month	Freight price* (per 100 miles)	Index variation (%) (Base: prior month)	Index value (Base: Jan. 05 = 100)
Jan. 05	5.67		100.00
Feb. 05	5.71	0.5	100.54
Mar. 05	5.62	-1.5	99.08
Apr. 05	6.22	10.6	109.61
May 05	6.41	3.1	112.96
Jun. 05	6.35	-0.9	111.90
Jul. 05	6.41	1.0	112.99
Aug. 05	6.44	0.4	113.46
Sep. 05	6.60	2.5	116.36
Oct. 05	6.67	1.0	117.52
Nov. 05	6.77	1.5	119.33
Dec. 05	6.49	-4.2	114.34
Jan. 06	6.61	1.9	116.56
Feb. 06	6.99	5.8	123.27
Mar. 06	7.12	1.8	125.51

*weighted average and quoted in US\$ per metric ton

Source: ESALQ/USP (University of São Paulo, Brazil) and USDA/AMS

Figure 3

Brazilian soybean export truck transportation weighted average prices, 2005

Source: ESALQ/USP (University of São Paulo, Brazil) and USDA/AMS

Table 4

Quarterly ocean freight rates for shipping soybeans from selected Brazilian ports to Hamburg, Germany and Shanghai, China (US\$/metric ton)*

Ports	Hamburg				Shanghai			
	2006 1 st qtr	2006 2 nd qtr	2006 3 rd qtr	2006 4 th qtr	2006 1 st qtr	2006 2 nd qtr	2006 3 rd qtr	2006 4 th qtr
Santos	39.51				50.13			
Paranagua	38.51				49.13			
Rio Grande	37.06				48.63			

Source: Sistema de Informações de Fretes, SIFRECA, ESALQ/USP (University of São Paulo, Brazil)

*correspond to the average actual values negotiated between shippers and carriers and weighted according to the magnitude of the shipped volumes

Related Articles



Brazil Soybean Transportation Guide: Brazil, one of the most important U.S. competitors in world markets, is the second largest soybean producer after the United States. It is forecast to surpass the United States this year to become the world's largest soybean exporting country. Noting Brazil's ascendancy in the world soybean market, we have prepared a visual resource—the *Brazil Soybean Transportation Guide*—to acquaint our readers with this important soybean producer. Welcome to the world of Brazilian soybean transport!

Figure 1

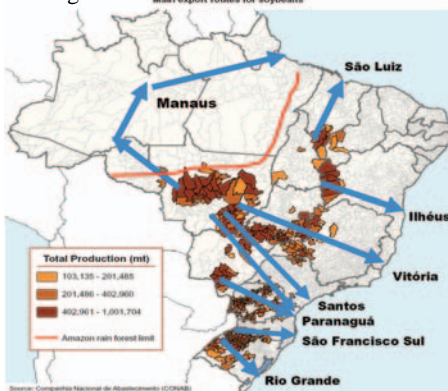
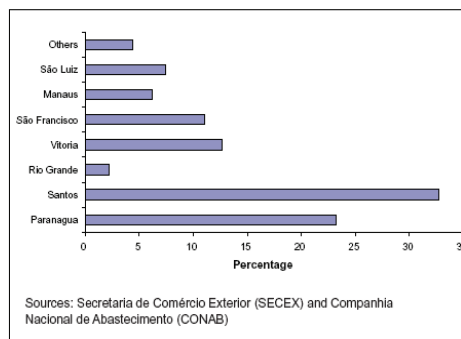


Figure 2
Brazil soybean exports by port, 2005



The *Guide* is a snapshot of the soybean market and transportation conditions in Brazil. It provides information about soybean transportation costs, regional production, exports, and transportation modes. Feature highlights in the guide are as follows. Figure 1 shows the Brazilian

soybean main export corridors. The port of Santos is the leading gateway for Brazilian soybean exports, as shown in figure 2. It accounted for about one third of the 2005 Brazil soybean exports, followed by the ports of

Figure 3
Brazil soybean average monthly exports

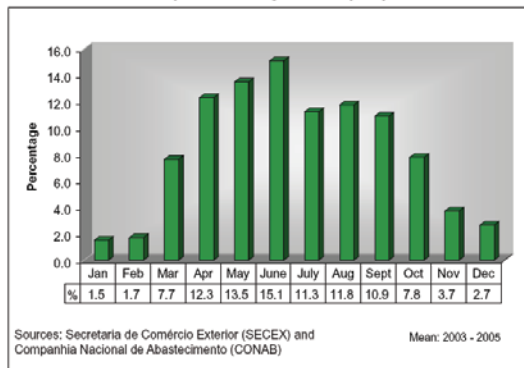


Figure 4



Paranaguá, Vitória, and São Francisco. Figure 3 shows that the peak of the soybean export season is in June, accounting for 15 percent of total soybean exports. Figure 4 shows the condition of major Brazilian

highways. Even though trucks account for 60 percent of general cargo transport, only 12 % of the 999,857 miles of Brazilian roads are paved. The condition of the paved roads varies across the country, with half the paved roads ranging from passable to very bad (Boletim Estatístico - Confederação Nacional do Transporte, December 2005).

In the state of Mato Grosso, the major Brazilian soybean producer and exporter, the region with the highest soybean production is close to the boundary of the Amazon rain forest, as shown in figure 1. One of the main priorities of the Brazilian government is to pave road BR-163, a major connector from the northern border of Mato Grosso to the port of Santarém, Pará. However, environmental restrictions and lack of funds is inhibiting the initiation of this project. Delmy.Salin@USDA.gov.

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<http://www.ams.usda.gov/tmd/TSB/BrazilSoybeanTransportationGuide.pdf>

*U.S. Corn, Soybean, and Wheat Quarterly
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<http://www.ams.usda.gov/tmdtsb/grain/>

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